

Amendments To The Specification

1. On page 1, after the title, add the following new section.

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of application serial no. 09/713,100 filed November 14, 2000 titled Apparatus and Method to Handle Power Supply Failures for a Peripheral Device.

2. Substitute the following amended Abstract for the original Abstract.

~~A method and apparatus to handle power supply failures to a peripheral device in a data processing system. One embodiment of the invention involves a method to handle a power failure during the performance of a task, wherein the peripheral device receives electrical power from a power supply, and the peripheral device is part of a data processing system that also contains a non-volatile memory. The method includes monitoring the power supply to determine whether the electrical power is going from "on" to "off," or going from "off" to "on." If the electrical power is going from "on" to "off," the method includes examining a task queue for the peripheral device to find at least one task; calculating the amount of electrical energy required for the task; performing the task if sufficient electrical energy remains available to the peripheral device to complete the task; and storing data describing the task in a task queue in the non-volatile memory if insufficient electrical energy remains available to the peripheral device to complete the remaining task. A second embodiment of the invention involves a data processing system that handles power failures. The One embodiment of the invention is directed to a data processing system that includes an electrical detection circuit to determine whether the electrical power is going from "on" to "off," or changing from "off" to "on;" a peripheral device, including a processor to calculate the amount of electrical energy required for the peripheral device to perform a task; a task queue for the peripheral device that can be read to find a task if the electrical power is going from "on" to "off;" and a non-volatile memory, including a task queue to store data describing the task if insufficient electrical energy remains available to the peripheral device to complete the task.~~

Amendments To The Claims

1.(currently amended) A method to handle power failures during the performance of a task by a peripheral device, wherein said peripheral device receives electrical power with an “on” state and an “off” state from a power supply, and said peripheral device is part of a data processing system which also contains a non-volatile memory, said method comprising:

monitoring said power supply to determine whether said electrical power is changing from said “on” state to said “off” state, or changing from said “off” state to said “on” state; and

if it is determined that said electrical power is changing from said “on” state to said “off” state,

examining a first task queue for said peripheral device to find at least one task for said peripheral device placed in said first task queue before it is determined that said electrical power is changing from said “on” state to said “off” state;

calculating the amount of electrical energy required for said at least one task;

performing said at least one task if sufficient electrical energy remains available to said peripheral device to complete said at least one task; and

storing data describing said task in a second task queue in said non-volatile memory if insufficient electrical energy remains available to said peripheral device to complete said at least one task.

2.(currently amended) The method of claim 1, further comprising:

searching in said second task queue in said non-volatile memory for at least one stored task if it is determined that said electrical power is changing from said “off” state to said “on” state; and

if said at least one stored task is in said second task queue,

starting said peripheral device, retrieving said at least one stored task from said second task queue, and

performing said at least one stored task with said peripheral device.

3.(original) The method of claim 2, further comprising starting said peripheral device if there is no stored task in said second task queue.